

## REMARKS

This application pertains to a novel thermoplastic hot-melt adhesive which is useful for bonding electrical modules to card bodies and is activated at implanting temperatures of 150°C (page 1, lines 10-12).

Claims 1-8 are pending.

Claims 1-8 stand rejected under 35 U.S.C. 112, second paragraph, because the Examiner finds the term "heat activable" to be vague and indefinite in that he finds it unclear if the activity that the heat meant to start is the setting of the adhesive (i.e. thermosetting) or if the heating of the polymer is only meant to melt the polymer but not set it.

It is, however, well-known in the art what a heat activatable adhesive is. As a matter of fact, heat-activatable adhesives are so well-recognized that they have acquired their own sub-class in the USPTO's classification system. See, for example, class 442/150 (149).

Further the meaning of the term is well-understood from the patent literature. See, for example, U.S. 6,500,536 where at column 1, lines 9-28 it is taught that:

The heat activatable adhesive layer is of a type which is not adhesive at room temperature but becomes adhesive when heated at an elevated temperature. The adhesive composition for use in the heat activatable adhesive layer is generally composed of a thermoplastic resin, a plasticizer and, optionally, a tackifier. The thermoplastic resin exhibits adhesiveness when plasticized. The plasticizer assumes a solid state at room temperature but is melted by the application of heat thereto to plasticize or swell the thermoplastic resin and to actualize the adhesiveness of the resin. The tackifier is used for improving the tackiness of the thermoplastic resin.

Those skilled in the art will clearly understand that Applicants' heat activatable adhesive sheets are sheets which are not adhesive at room temperature but which become adhesive when heated at an elevated temperature.

Accordingly, Applicants' claims are not vague or indefinite at all, and the rejection of claims 1-8 under 35 U.S.C. 112, second paragraph should now be withdrawn.

Claims 1, 3, 4 and 7 stand rejected under 35 U.S.C. 103(a) as obvious over Feichtmeier et al (U.S. 6,350,791) and further in view of Kelch et al. (U.S. 2002/0068182).

The Examiner contends that it would be obvious to modify the adhesive composition of Feichtmeier by using the GRILEX<sup>®</sup>9 copolyester of Kelch et al. for the purpose of imparting improved rheological properties.

The Kelch compositions are blends of polar-modified polyolefins [0029] and a polyester [0030].

The Feichtmeier compositions are thermosetting adhesives, which include polyesters, epoxy resins, **curing systems for the epoxy component**, and hydroxides and/or hydroxyoxides.

There is absolutely nothing in the Kelch reference that would teach or suggest to use Kelch's polyesters, such as GRILTEX 9 in Feichtmeier's **thermosettable** adhesive compositions. However, even if Feichtmeier's thermosettable adhesive compositions were prepared using Kelch's GRILTEX 9 polyester, the result would still be a thermosettable adhesive, and not an adhesive that is., e.g. not adhesive at room temperature but which becomes adhesive when heated. When Feichtmeier's compositions are heated they **thermoset**.

When Applicants' compositions are heated, they become adhesive.

Therefore, even if Kelch's GRILTEX 9 were used in Feichtmeier's adhesive compositions, the result would not be anything like Applicants' novel heat-activable adhesive sheets.

The Examiner argues that:

"The adhesive of modified Feichtmeier et al. is heat-activable in the sense that it can be melted for application to the desired substrate and it is also considered heat -activable in the sense that it can be thermoset at a higher temperature. This combined thermal effect is achieved through a combination of thermosetting polymers and thermoformable polymers. Either of these polymers (thermosetting or thermoformable) would be considered heat activable."

Of course, as can be seen above, the expression "heat -activable" does not mean what the Examiner contends it means, and the correct meaning of that term is well-understood by the art, as reflected in the language quoted above from U.S. Patent 6,500,536 and from the fact that heat activatable adhesives have attained their own sub-class in the USPTO' s classification system.

The term "heat activable", as discussed above, means that the adhesive composition is not adhesive at room temperature, but becomes adhesive when heated.

Nothing in the Feichtmeier or Kelch, or any combination of these references, teaches or suggests anything about a heat-activable resin. Further, as discussed above, the compositions of these two references would never be combined in any event.

Accordingly no combination of Feichtmeier and Kelch could therefore ever lead to Applicants novel adhesive sheets, and the rejection of claims 1, 3, 4 and 7 under 35 U.S.C. 103(a) as obvious over Feichtmeier et al (U.S. 6,350,791) and further in view of Kelch et al. (U.S. 2002/0068182) should therefore now be withdrawn.

Claims 2 and 8 stand rejected under 35 U.S.C. 103(a) as obvious over Feichtmeier et al (U.S. 6,350,791) in view of Kelch et al. (U.S. 2002/0068182) and further in view of Vieilledent (U.S. 4,701,236).

The reasons why those skilled in the art would never modify the Feichtmeier et al compositions by the addition of Kelch's GRILTEX<sup>®</sup> 9 are discussed above. The Examiner turns to Vieilledent for a teaching of thickness of adhesive. No thickness of adhesive could ever overcome the reasons why Kelch and Feichtmeier would never be combined, as discussed above.

The rejection of claims 2 and 8 under 35 U.S.C. 103(a) as obvious over Feichtmeier et al (U.S. 6,350,791) in view of Kelch et al. (U.S. 2002/0068182) and further in view of Vieilledent (U.S. 4,701,236) should therefore now be withdrawn.

Claims 5 and 6 stand rejected under 35 U.S.C. 103(a) as obvious over Feichtmeier et al (U.S. 6,350,791) in view of Kelch et al. (U.S. 2002/0068182) and further in view of Haghiri-Tehrani (U.S. 4,897,534). The reasons why those skilled in the art would never modify the Feichtmeier et al compositions by the addition of Kelch's GRILTEX<sup>®</sup> 9 are discussed above. The Examiner turns to the Haghiri-Tehrani reference for a method of using an adhesive to secure a chip to a card. Nothing in the Haghiri-Tehrani would provide any reason to add Kelch's GRILTEX<sup>®</sup> 9 to the Feichtmeier et al compositions. Therefore, no combination of Feichtmeier et al, Kelch et al and Haghiri-Tehrani could ever lead to Applicants' novel adhesive sheets.

The rejection of claims 5 and 6 under 35 U.S.C. 103(a) as obvious over Feichtmeier et al (U.S. 6,350,791) in view of Kelch et al. (U.S. 2002/0068182) and further in view of Haghiri-Tehrani (U.S. 4,897,534) should therefore now be withdrawn.

In view of the present amendments and remarks it is believed that claims 1-8 are now in condition for allowance. Reconsideration of said claims by the Examiner is respectfully requested and the allowance thereof is courteously solicited.

CONDITIONAL PETITION FOR EXTENSION OF TIME

If any extension of time for this response is required, Applicant requests that this be considered a petition therefor. Please charge the required petition fee to Deposit Account No. 14-1263.

ADDITIONAL FEE

Please charge any insufficiency of fee or credit any excess to Deposit Account No. 14-1263.

Respectfully submitted,  
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